



Nathan Schumaker <[REDACTED]>

update on our modeling glossary

2 messages

Bruce G. Marcot <brucem@spiritone.com>

Wed, May 5, 2010 at 9:40 AM

To: Brendan White <Brendan_White@fws.gov>, Nathan Schumaker <[REDACTED]>

Here's a new version. I used all of Brendan's suggestions, and reformatted it a bit better.

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Ecology Picture of the Week:
<http://www.taos-telecommunity.org/epow/>
The Plexus -- Where Disciplines Collide:
<http://www.spiritone.com/~brucem>

** personal correspondence **



Terms to define for FWS NSO modeling 100505a.doc

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Nathan Schumaker <[REDACTED]>

Mon, May 10, 2010 at 9:04 AM

To: "Bruce G. Marcot" <brucem@spiritone.com>

Cc: Brendan White <Brendan_White@fws.gov>

Sorry -- I should have read my email in reverse order this time. Here are some comments on the second draft of the glossary...

I noticed that the term "range" was dropped from the list. Was that intentional?

[Quoted text hidden]

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NHS Edits.doc

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Key Terms for USFWS NSO Recovery Plan Modeling, 2010

General Modeling Terms:

replicates—repeated model runs (e.g., how many times HexSim simulates a population response for a defined number of time steps for a single reserve design with one set of defined parameters)

time step—one year in the life cycle of the species

HexSim Terms:

replicate – a series of simulation time steps, beginning with time step 0 (initial conditions) and ending with the final time step set by the user

time step – one complete pass through the life cycle of the model species (typically corresponds to a year)

range - defended territory

explored area - home range

barrier - a ~~specified geographic line~~series of adjacent hexagon edges across which dispersal may or may not ~~be impeded~~ impede dispersal, depending on how strong a movement filter it constitutes; designated in HexSim as a set of contiguous hexagon edges and can serve merely as a “counter” to keep track of the number of dispersers that cross over that line

excluded area - geographic areas into which an animal will never even attempt to move, e.g. ocean

event space – the sequence of activities pertaining to reproduction, survival, movement, and habitat selection by an individual female owl over the course of a single simulated year

model run – the complete process of engaging HexSim to simulate a population response through a variable number of time steps and replicates for a single reserve design with one set of defined parameters

source - geographic areas in which recruitment > loss

sink - geographic areas in which recruitment < loss

HexSim scenario - ~~demographic attributes of a population~~the complete set of parameter values necessary to run a simulation

workspace - ~~the HexMap(s) that define the geographic area of interest~~ a folder structure that hold HexSim input and output files, spatial data, and that defines the geographic area of interest

HexMap – a HexSim spatial data map (HexMaps may be collected into time series)

Other FWS modeling terms:

reserve design or **reserve network** - specific mapped boundaries of conservation areas

scenario - a specific FWS reserve design along with anticipated or assumed activities that affect NSO habitat within and outside the reserve boundaries